

REMARKS/ARGUMENTS

Applicants thank the Examiner for careful review of this application. Claims 1-9 have been rejected. Claim 10 was allowed. Claim 8 has been canceled. Claims 1, 2, 5, and 9 have been amended. Claims 11-14 have been added. Applicants respectfully request reconsideration of the application in view of the above amendments and additions and the following remarks submitted in support thereof.

Rejection under 35 U.S.C. § 112:

Claim 5 was rejected under 35 U.S.C. 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. This rejection is respectfully traversed. Claim 5 as currently amended further describes the apparatus of claim 1 by distinctly claiming a hanging bore that mates and aligns with a hanger. Accordingly, claim 5 is submitted to overcome the rejection and to be patentable.

Rejections under 35 U.S.C. § 101:

Claim 5 was rejected under 35 U.S.C. 101 for overlapping two separate statutory classes of invention. This rejection is respectfully traversed. Claim 5, is currently amended to remove the procedural element of from the structure element. As amended claim 5 defines physical attributes of the wafer area pressure confinement apparatus of claim 1. Accordingly, claim 5 is submitted to overcome the rejection and to be patentable.

Rejections under 35 U.S.C. § 102(a):

Claims 1-4, 6-7 and were rejected under 35 U.S.C. 102(a) as being anticipated by Lenz et al. (U.S. Patent Number 5,534,751, herein after "Lenz"). This rejection is respectfully traversed. Although the claims in their original state are submitted to be patentable over Lenz, claim 1 has been amended to more clearly define the claimed invention. For the reasons put forth below, Applicants respectfully submit that Lenz fails to disclose each and every element of the claimed invention, as defined in independent claim 1.

Lenz teaches a plasma reaction chamber which utilizes a confinement assembly composed of one to several rings. Screws attach the confinement rings to plungers extending into the chamber. Lenz describes slots (31) between rings and spacers (34) that have "planar upper and lower surfaces and lateral dimensions large enough to provide desired support for the rings" (column 7 lines 17-21). The configuration of rings shown in Figure 2 of Lenz' teaching illustrates rings incorporated with spacers.

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In contrast, claim 1 as amended of the claimed invention provides that the rings are coupled to hangers. It is submitted that Lenz fails to teach or suggest use of hangers. In the claimed invention, hangers receive and couple the rings so that the rings may be suspended in the wafer processing chamber. Accordingly, claim 1 is submitted to be patentable over Lenz as Lenz fails to teach each and every element of the claimed invention. Claims 2-4 and 6-7, each of which depend from claim 1, are likewise patentable over Lenz for at least the same reasons set forth above for claim 1.

Claim 9 was also rejected under 35 U.S.C. 102(a) as being anticipated by Lenz. The rejection is respectfully traversed. Claim 9 as amended is submitted to be patentable over Lenz. Lenz teaches confinement rings with spacers that are attached to plungers by screws. In contrast, in claim 9 of the claimed invention confinement rings are capable of being attached to chamber plungers through the use of hanging bores and are suspended on hangers such that spacing is provided between the rings. Applicants respectfully submit claim 9 is patentable over Lenz in that Lenz fails to disclose each and every element of the claimed invention, as defined in independent claim 9.

Rejections under 35 U.S.C. § 103(a):

Claim 5 was rejected under 35 U.S.C. 103(a) as being unpatentable over Lenz in view of Santoh et al (U.S. Patent Number 6,113,704, herein after "Santoh"). Santoh teaches a plate and heating block surface that are coupled together by rotation. The susceptor plate (20) and the heating block (21) are linked by a coupling component (30). The coupling components taught by Santoh are described as being of metal or alloy materials (column 5 lines 36-44 and column 6 lines 29-33).

Amended claim 5 provides for mating and alignment the hanging bores to the hangers. Applicant has added new claims 11-14 to claim the rotating and locking functionality formerly presented in claim 5. Newly added claim 11 which depends from claim 5 and added claim 13 which depends from claim 9 provide for hangers utilizing twist and lock functionality. Newly added claim 12 which depends from claim 1 and claim 14 which depends from claim 9 define hangers that are stepped to provide for a separation between quartz and other dielectric rings offering a significant improvement in pumping conductance. The features of claims 11-14 are not taught or suggested by Santoh's method. The present invention provides twist and lock functionality as well as maximum gap functionality between the confinement rings of the wafer area pressure confinement apparatus. The proposed modification would change the principle of Santoh's teaching as the claimed invention is designed for moveable separation, not merely coupling. Pressing the rings together in the method of Santoh without separation would render the claimed invention void

Appl. No. 09/916,784
Amdt. dated 07/02/2003

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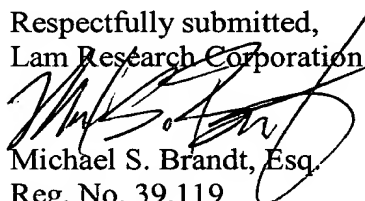
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of its purpose. Santoh's use of rotated coupling for metallic plates would not have been obvious in view of separated dielectric confinement rings used for pumping conductance as taught by Lenz. Accordingly withdrawal of the rejection is respectfully requested.

Conclusion

In summary, as Lenz fails to teach each and every element of the claimed invention, the Applicants respectfully submit that claims 1-7, and 9 are patentable as currently presented. Additionally as Santoh fails to teach coupled yet separated components, applicants respectfully submit that claims 5, and 11-14 are patentable over Santoh.

In view of the foregoing, the Applicants respectfully submit that all the pending claims are in condition for allowance. Accordingly, a Notice of Allowance is respectfully requested. If the Examiner has any questions concerning the present Amendment, the Examiner is kindly requested to contact the undersigned at (510) 572-1667. If any additional fees are due in connection with filing this Amendment, the Commissioner is also authorized to charge Deposit Account No. 50-1842 (Order No. P0815). A duplicate copy of the transmittal is enclosed for this purpose.

Respectfully submitted,
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